Description of Paracubaris spinosus, a new Genus and Species of Terrestrial Isopoda from British Guiana. By WALTER E. COLLINGE, D.Sc., F.L.S., etc., Carnegie Fellow, and Research Fellow of the University of St. Andrews.

(PLATE 6.)

[Read 3rd May, 1917.]

IN June last I received from Mr. G. E. Bodkin, the Government Economic Biologist at Georgetown, Demerara, British Guiana, two specimens of Terrestrial Isopods collected from decaying wood, Mazakuvi River, British Guiana, a very slight examination of which was sufficient to indicate that they differed in a number of important structural characters from the genus *Cubaris*, Brandt, to which they bore a superficial resemblance.

A closer examination shows that whilst belonging to the Cubaridæ, they are quite distinct from the genus *Cubaris* or any of its allies, and necessitate the erection of a new genus, which I am here describing under the name of *Paracubaris*.

PARACUBARIS, gen. nov.

Body oblong-oval, segments strongly convex, whole of dorsal surface covered with short, blunt spines. Cephalon short and wide, cephalic lobes absent, epistome dorsally sloping and keeled in the median line. Eyes compound, situated dorso-laterally. Antennæ with 2-jointed flagellum and elongated terminal style. Inner lobe of maxillipede without spines, terminating in a setaceous pad. Pleural plates of mesosomatic segments slightly excavate and terminally the 2nd to 5th bluntly pointed. Only the first segment exhibits a slight thickening on the inner lateral margin. Uropoda extending beyond the telson; basal plate thick and flattened, exopodite articulating with the posterior inner border, short and broad and extending beyond the basal plate, endopodite long, both exo- and endopodite have a short terminal style. Telson triangular, terminally bluntly rounded, proximally wider than the length.

Paraeubaris differs from the genus *Cubaris*, Brandt, in the form of the cephalon, antennæ, maxillipedes, and the first mesosonatic segment. Unlike any member of the latter genus the uropoda extend beyond the telson and in the form of both of these structures there are well-marked differences.

In the position of insertion of the exopodite *Paracubaris* shows a relationship with *Pseudarmadillo*, Saussure^{*}, *Sphæroniscus*, Gerstaecker⁺, and

^{*} Rev. et Mag. Zool. (s. 2), vol. ix. (1857) p. 308, and Mém. Soc. Phys. et d'Hist. Nat. Genève, vol. xiv. (1858) p. 483, figs. 43, 43 α.

[†] Ent. Zeit. 1854, p. 314.

Haplarmadillo, Dollfus *, but differs from the first-mentioned genus in the form of the cephalon and first mesosomatic segment, from the second in the two-jointed flagellum of the antennæ and in only the first two metasomatic appendages having pseudo-tracheæ, whereas in *Sphæroniscus* they are present in all the five appendages. In *Haplarmadillo* the flagellum of the antennæ has but a single joint and the eyes are simple. The new genus is more closely related to the genus *Minca*, Pearse †, recently described from Colombia, which possesses a two-jointed flagellum, a triangular-shaped telson, and broad flat uropoda, which extend beyond the metasome.

PARACUBARIS SPINOSUS, sp. nov. (Plate 6.)

Body oblong-oval, segments strongly convex, dorsal surface covered with short blunt spines, finely granulose. Cephalon (figs. 1 & 2) short and wide, with well-marked anterior and posterior margins; cephalic lobes absent; epistome dorsally sloping from the anterior margin of the cephalon, keeled in the median line, concave laterally. Eyes compound, situated dorsolaterally. Antennulæ (fig. 3) 3-jointed, distal joint with few stout spines laterally and fine terminal style. Antennæ (figs. 4 & 5) of medium length, 1st joint short, 2nd grooved on the outer side, 5th joint elongated ; flagellum 2-jointed, distal joint the smaller, with elongated terminal style. First maxillæ (fig. 6), outer lobe terminating in four outer, stout, curved spines and eight smaller inner ones; inner lobe terminally rounded, with two spines covered with fine short setæ. Maxillipedes (fig. 7), the terminal joint of the outer palp is multispinous, two multispinous processes arise from the middle joint, and there is a single large spine on the inner border of the first joint; the inner lobe is without teeth or spines, but has a well-marked setaceous pad terminally. The segments of the mesosome are strongly convex, pleural plates all slightly excavate, those of 2nd to 5th segments terminally bluntly pointed, remainder truncate, posterior angles undeveloped. The first segment has a slight fold on the outer margin, which ventrally appears as a thickening (figs. 8 & 9). Thoracic appendages normal, enlarging slightly posteriorly. Uropoda (fig. 10) extending beyond the telson; basal plate thick and flattened, with slightly raised diagonal crest, exopodite short and broad, articulating with posterior inner border and extending beyond the basal plate a little, endopodite long, both spinous and with small terminal styles. Telson (fig. 11) triangular, terminally bluntly pointed, proximally wider than the length. Length 20.5 mm. Colour (in alcohol) greenishbrown with lateral areas on the mesosome of brown and white mottling.

Habitat. In decaying wood, Mazakuvi River, British Guiana, May 1916 (G. E. Bodkin).

* Proc. Zool. Soc. Lond. 1896, p. 399.

† Proc. U.S. Nat. Mus. vol. xlix. (1915) p. 544, fig. 6.

Collinge.

XXXIV. PL 6. Journ Linn. Soc. Zool. Vol. XXXIII. PL 6.



S.R.K. del.ad. nat

PARACUBARIS :

C Hodges & Sor. lith & imp. SPINOSUS. Type. In collection of W. E. C.

Paracubaris spinosus is of special interest in that it represents a type of Cubaridæ only known as yet from the Western Hemisphere. The short wide cephalon is very different from the form seen in *Cubaris*, Brandt, and the sloping epistome, present in some species of this last-mentioned genus, is also present here, a fact which would seem to considerably weaken the importance attached to this particular character by Budde-Lund, who regarded it as of generic importance.

The antennæ are distinctly Cubarid, and differ from those in *Cubaris* only by the absence of the grooves on the outer side, and in that the distal joint of the flagellum is shorter than the proximal one.

The maxillæ offer no characters of importance, but the inner lobe of the maxillipede is curious in possessing a setaceous pad terminally in place of the usual tooth-like spines. This feature occurs in many genera of Terrestrial Oniscoida, but not, so far as I am aware, in any belonging to the Cubaridæ.

The pleural plates of only the second mesosomatic segment exhibit any thickening of the coxopodite, and these are of a very simple nature (figs. 8 & 9).

The uropoda are very distinct from those of any other genus of the family, being thick and flattened with the exopodite inserted on the posterior inner border of the basal plate. They extend beyond the telson. On the outer lateral and posterior border of the basal plate are a number of strong short spines, and a few similar ones are present on the exo- and endopodites.

As in *Minca*, Pearse, the telson is triangular and does not extend to the end of the metasomatic segments.

EXPLANATION OF PLATE 6.

Paracubaris spinosus, gen. et sp. nov.

- Fig. 1. Dorsal view of the cephalon. $\times 8$.
 - 2. Anterior view of the cephalon. $\times 8$.
 - 3. Dorsal view of the right antennule. \times 70.
 - 4. Dorsal view of the right antenna. \times 14.
 - 5. Terminal style of the antenna. \times 110.
 - 6. Terminal portions of the inner and outer lobes of the right 1st maxilla. \times 70.
 - 7. Terminal portion of the left maxillipede. \times 48.
 - 8. Ventral view of the outer margin of the 2nd mesosomatic segment. $\times 6$.
 - 9. Terminal margin of the same. $\times 8$.
 - 10. Dorsal view of the right unopod. \times 14.
 - 11. Telson and last metasomatic segment. \times 6.

The author desires to thank the Carnegie Trust for the Universities of Scotland for a grant to defray artist's charges.